

In the Claims:

1. (Amended) An apparatus for increasing the quality of sound from an acoustic source by improving the range of bass sounds produced by the acoustic source in improving acoustic output of bass sound, said from an acoustic source and that is particularly useful apparatus, said apparatus comprising:

an acoustic guide having a first end and a second end, said acoustic guide in the shape of a double helix;

a hollow enclosure substantially surrounding said acoustic guide, said hollow enclosure having a first open end and a second open end;

a pair of acoustic inlet openings defined by said first end of said acoustic guide, said pair of acoustic inlet openings capable of receptive to the admission of admitting acoustic waves produced by an acoustic source; and

a pair of acoustic exit openings defined by said second end of said acoustic guide, each one of said pair of acoustic exit openings in communication with each one of said pair of acoustic inlet openings, respectively;

a pair of acoustic paths defined by said acoustic guide, said pair of acoustic paths positioned intermediate of said pair of acoustic inlet openings and said pair of acoustic exit openings; and

an acoustic source secured to said first open end of said enclosure, said acoustic source spaced apart longitudinally from said acoustic guide;

wherein each one of said acoustic paths is mutually exclusive of the other and promotes unidirectional travel of the acoustic waves;

In re Mackin et al.
Inter. App. No. PCT/US2003/002818
Inter. Filing Date: 30 January 2003
Priority Date: 4 November 2002
Page 8

wherein said pair of acoustic inlet openings separate acoustic waves emanating from the acoustic source and direct the acoustic waves to said pair of acoustic exit openings.

2. Canceled

3. Canceled

4. Canceled

5. Canceled

6. The apparatus according to Claim 1, wherein:

said hollow enclosure includes grooves formed in the interior surface of said hollow enclosure;

said grooves in a corresponding relationship with edges of said acoustic guide;

said acoustic guide mounted in said grooves in the interior surface of said hollow enclosure.

7. Canceled

8. Canceled

In re Mackin et al.
Inter. App. No. PCT/US2003/002818
Inter. Filing Date: 30 January 2003
Priority Date: 4 November 2002
Page 9

9. (Amended) The apparatus according to Claim 1, wherein:
 - each of said pair of acoustic inlet openings is oriented substantially coplanar with respect to one another; and
 - each of said pair of acoustic exit openings is oriented substantially coplanar with respect to one another.

10. Canceled

11. The apparatus according to Claim 1, wherein said pair of acoustic inlet openings and said pair of acoustic exit openings are oriented substantially parallel to one another.

12. The apparatus according to Claim 1, wherein said pair of acoustic inlet openings and said pair of acoustic exit openings are oriented in a plane that is substantially perpendicular to the path of acoustic waves produced by the acoustic source.

13. The apparatus according to Claim 1, wherein said pair of acoustic inlet openings and said pair of acoustic exit openings are oriented in a plane that is substantially parallel to the path of acoustic waves produced by the acoustic source.

14. Canceled

15. Canceled

16. (Amended) The apparatus according to Claim 1, ~~further comprising a pair of acoustic paths defined by said acoustic guide, wherein said pair of acoustic paths is in the shape of a double helix, said pair of acoustic paths positioned intermediate said pair of acoustic inlet openings and said pair of acoustic exit openings.~~

17. Canceled

18. Canceled

19. Canceled

20. (Amended) An apparatus for increasing the quality of sound from an acoustic source ~~by improving the range of bass sounds produced by the acoustic source and that is particularly useful in improving acoustic output of bass sounds,~~ said apparatus comprising:

a hollow enclosure having a first open end, a second open end, an interior surface, and an exterior surface;

an acoustic source connected to said first open end of said hollow enclosure, ~~said acoustic source capable of producing acoustic waves;~~

an acoustic guide ~~having a first end and a second end, said acoustic guide mounted to the interior surface of said hollow enclosure and spaced apart~~

In re Mackin et al.
Inter. App. No. PCT/US2003/002818
Inter. Filing Date: 30 January 2003
Priority Date: 4 November 2002
Page 11

longitudinally from said acoustic source, said acoustic guide in the shape of a double helix,—said acoustic guide having a first end and a second end; and

a pair of acoustic paths defined by said acoustic guide, said pair of acoustic paths in the shape of a double helix;

wherein each one of said acoustic paths is mutually exclusive of the other and promote unidirectional travel flow of the acoustic waves;

wherein said acoustic guide separates acoustic waves from said acoustic source and directs the acoustic waves along said pair of acoustic paths.

21. Canceled

22. Canceled

23. The apparatus according to Claim 20, wherein said hollow enclosure substantially surrounds said acoustic guide.

24. The apparatus according to Claim 20, wherein said hollow enclosure and said acoustic guide define a common axis.

25. Canceled

26. Canceled

27. Canceled

28. Canceled

In re Mackin et al.
Inter. App. No. PCT/US2003/002818
Inter. Filing Date: 30 January 2003
Priority Date: 4 November 2002
Page 12

29. The apparatus according to Claim 20, wherein said acoustic guide is mounted to the interior surface of said hollow enclosure with material selected from the group consisting of adhesive, foam rubber, and hook-and-loop fasteners.

30. The apparatus according to Claim 20, wherein:

said hollow enclosure includes grooves formed in the interior surface of said hollow enclosure;

said grooves in a corresponding relationship with edges of said acoustic guide;

said acoustic guide mounted in said grooves in the interior surface of said hollow enclosure.

31. The apparatus according to Claim 20, wherein said first end of said acoustic guide is connected to said acoustic source.

32. Canceled

33. (Amended) The apparatus according to Claim 32 20, further comprising an empty chamber defined by the interior surface of said hollow enclosure, said first end of said hollow enclosure, and said first end of said acoustic guide.

In re Mackin et al.
Inter. App. No. PCT/US2003/002818
Inter. Filing Date: 30 January 2003
Priority Date: 4 November 2002
Page 13

34. The apparatus according to Claim 20, wherein the radius of each of said pair of acoustic paths is substantially equal to the radius of said hollow enclosure.

35. (Amended) The apparatus according to Claim 20, further comprising:
a pair of acoustic inlet openings defined by said first end of said acoustic device; and
a pair of acoustic exit openings defined by said second end of said acoustic device, said pair of acoustic exit openings in communication with said pair of acoustic paths and said pair of acoustic inlet openings.

36. (Amended) The apparatus according to Claim 35, wherein:
each of said pair of acoustic inlet openings is oriented substantially coplanar with respect to one another; and
each of said pair of acoustic exit openings is oriented substantially coplanar with respect to one another.

37. Canceled

38. Canceled

39. Canceled

In re Mackin et al.
Inter. App. No. PCT/US2003/002818
Inter. Filing Date: 30 January 2003
Priority Date: 4 November 2002
Page 14

40. The apparatus according to Claim 35, wherein said pair of acoustic inlet openings and said pair of acoustic exit openings are oriented substantially parallel to one another.

41. The apparatus according to Claim 35, wherein said pair of acoustic inlet openings and said pair of acoustic exit openings are oriented in a plane that is substantially perpendicular to the path of the acoustic waves produced by said acoustic source.

42. The apparatus according to Claim 35, wherein said pair of acoustic inlet openings and said pair of acoustic exit openings are oriented in a plane that is substantially parallel to the path of acoustic waves produced by said acoustic source.

43. Canceled

44. Canceled

45. Canceled

46. Canceled

47. Canceled